WHAT IS CLAIMED IS:

1. An apparatus for remotely monitoring at least one physiological condition of a child by detecting very low frequency acoustic signals comprising a low frequency sensor capable of being acoustically coupled to a source of acoustic signals, said low frequency sensor capable of receiving low frequency acoustic signals in the frequency range of one tenth Hertz to thirty Hertz and generating electronic signals indicative of the intensity of said low frequency acoustic signals.

2. An apparatus as claimed in Claim 1 further comprising signal processing circuitry coupled to said low frequency sensor capable of processing said electronic signals from said low frequency sensor to obtain electronic signals indicative of the intensity of said low frequency acoustic signals in the frequency range of one tenth Hertz to two Hertz.

3. An apparatus as claimed in Claim 1 further comprising signal processing circuitry coupled to said low frequency sensor capable of processing said electronic signals from said low frequency sensor to obtain electronic signals indicative of the intensity of said low frequency acoustic signals in the frequency range of ten Hertz to thirty Hertz.

4. The apparatus as claimed in Claim 1 wherein said low frequency sensor comprises:

a chamber capable of being acoustically coupled to a source of acoustic signals, said chamber having portions that define a cavity within said chamber;

a microphone capable of receiving low frequency acoustic signals within said cavity of said chamber in the frequency range of one tenth Hertz to thirty Hertz and capable of generating electronic signals indicative of the intensity of said low frequency acoustic signals.

5. The apparatus as claimed in Claim 4 wherein said chamber is a closed chamber filled with fluid.

6. The apparatus as claimed in Claim 5 wherein said fluid is air.

7. The apparatus as claimed in Claim 4 wherein said chamber is an open chamber filled with air.

8. The apparatus as claimed in Claim 4 wherein said chamber is formed having nonrigid walls.

9. The apparatus as claimed in Claim 8 wherein said nonrigid walls are capable of moving inwardly and outwardly with respect to the interior of said cavity in response to the presence of low frequency acoustic energy.

10. An apparatus as claimed in Claim 4 further comprising signal processing circuitry coupled to said microphone capable of processing said electronic signals from said microphone to obtain electronic signals indicative of the intensity of said low frequency acoustic signals in the frequency range of one tenth Hertz to two Hertz.

11. An apparatus as claimed in Claim 4 further comprising signal processing circuitry coupled to said microphone capable of processing said electronic signals from said microphone sensor to obtain electronic signals indicative of the intensity of said low frequency acoustic signals in the frequency range of ten Hertz to thirty Hertz.

12. An apparatus for remotely monitoring at least one physiological condition of a child by detecting very low frequency acoustic signals comprising an apparatus capable of detecting very low frequency acoustic signals in the frequency range of one tenth Hertz to thirty Hertz comprising:

a chamber capable of being acoustically coupled to a source of acoustic signals, said chamber having portions that define a cavity within said chamber, and said chamber having nonrigid walls capable of moving inwardly and outwardly with respect to the interior of said cavity in response to the presence of low frequency acoustic energy; and

a microphone placed within said cavity of said chamber capable of receiving low frequency acoustic signals within said cavity of said chamber that are caused by the inward and outward motion of said nonrigid walls of said cavity, and capable of generating electronic signals indicative of the intensity of said low frequency acoustic signals.

13. The apparatus as claimed in Claim 4 further comprising:

a membrane attached to said chamber covering said cavity of said chamber, said membrane capable of moving in response to very low frequency acoustic signals incident on said membrane to cause said very low frequency acoustic signals to be transmitted through said cavity to said microphone.

14. The apparatus as claimed in Claim 13 wherein the movements of said membrane amplify the intensity of said very low frequency acoustic signals within said cavity.

15. The apparatus as claimed in Claim 14 wherein said movements of said membrane amplify the intensity of said very low frequency acoustic signals within said cavity by causing said very low frequency acoustic signals to resonate within said cavity.

16. An apparatus as claimed in Claim 13 further comprising signal processing circuitry coupled to said microphone capable of processing said electronic signals from said microphone to obtain electronic signals indicative of the intensity of said low frequency acoustic signals in the frequency range of one tenth Hertz to two Hertz.

17. An apparatus as claimed in Claim 13 further comprising signal processing circuitry coupled to said microphone capable of processing said electronic signals from said microphone sensor to obtain electronic signals indicative of the intensity of said low frequency acoustic signals in the frequency range of ten Hertz to thirty Hertz.

18. The apparatus as claimed in Claim 12 further comprising:

a membrane attached to said chamber covering said cavity of said chamber, said membrane capable of moving in response to very low frequency acoustic signals incident on said membrane to cause said very low frequency acoustic signals to be transmitted through said cavity to said microphone.

19. The apparatus as claimed in Claim 18 wherein the movements of said membrane amplify the intensity of said very low frequency acoustic signals within said cavity.

20. The apparatus as claimed in Claim 19 wherein said movements of said membrane amplify the intensity of said very low frequency acoustic signals within said cavity by causing said very low frequency acoustic signals to resonate within said cavity.

21. A physiological condition monitor for remotely monitoring at least one physiological condition of a child by detecting very low frequency acoustic signals of the child comprising:

a sensor capable of being acoustically coupled to the body of the child being monitored and capable of receiving low frequency acoustic signals in the range of one tenth Hertz to thirty Hertz and capable of generating electronic signals indicative of the intensity of said low frequency acoustic signals; and

a low bandpass filter coupled to said sensor capable of processing said electronic signals from said sensor to obtain digitally encoded electronic signals indicative of the intensity of said low frequency acoustic signals in the frequency range of one tenth Hertz to two Hertz, said digitally encoded electronic signals being indicative of respiration activity of the child being monitored.

22. The physiological condition monitor claimed in Claim 21 further comprising:

a high bandpass filter coupled to said sensor capable of processing said electronic signals from said sensor to obtain digitally encoded electronic signals indicative of the intensity of said low frequency acoustic signals in the frequency range of ten Hertz to thirty Hertz, said digitally encoded electronic signals being indicative of cardiac activity of the child being monitored.

23. The physiological condition monitor claimed in Claim 22 further comprising:

a processor unit, said processor unit coupled to said low bandpass filter capable of receiving said digitally encoded electronic signals from said low bandpass filter indicative of said respiration activity, and said processor unit coupled to said high bandpass filter capable of receiving said digitally encoded electronic signals from said high bandpass filter indicative of said cardiac activity; and

a recording device associated with said processor unit capable of receiving from said processor unit digitally encoded electronic signals representative of at least one physiological condition and capable of recording said electronic signals.

24. The physiological condition monitor as claimed in Claim 23 further comprising a transmitter coupled to said processor unit capable of receiving digitally encoded electronic signals indicative of at least one physiological condition, said transmitter including an antenna for transmitting said digitally encoded electronic signals received from said processor unit.

25. A sensor capable of obtaining low frequency acoustic signals from a child without being directly coupled to the skin of the child, said sensor comprising:

a chamber having portions that define a cavity within said chamber, said chamber capable of being acoustically coupled to low frequency acoustic signals of the child;

a microphone placed within said cavity of said chamber, said microphone capable of receiving low frequency acoustic signals in the frequency range of one tenth Hertz to thirty Hertz and generating electronic signals indicative of the intensity of said low frequency acoustic signals received by said microphone; and

a membrane attached to said chamber covering said cavity of said chamber, said membrane capable of moving in response to very low frequency acoustic signals incident upon said membrane to cause said very low frequency acoustic signals to be transmitted through said cavity to said microphone, said membrane capable of being acoustically coupled to said low frequency acoustic signals of the child without directly contacting the skin of the child.

26. A method for detecting very low frequency acoustic signals comprising the steps of:

acoustically coupling a low frequency sensor to a source of low frequency acoustic signals;

receiving in said low frequency sensor acoustic signals in the range of one tenth Hertz to thirty Hertz; and

generating in said low frequency sensor electronic signals indicative of the intensity of said low frequency acoustic signals.

27. A method as claimed in claim 26 further comprising the step of:

processing said electronic signals from said low frequency sensor with signal processing circuitry; and

obtaining electronic signals indicative of the intensity of said low frequency acoustic signals in the frequency range of one tenth Hertz to two Hertz.

28. A method as claimed in claim 26 further comprising the step of:

processing said electronic signals from said low frequency sensor with signal processing circuitry; and

obtaining electronic signals indicative of the intensity of said low frequency acoustic signals in the frequency range of ten Hertz to thirty Hertz.

29. A method for detecting low frequency acoustic signals comprising the steps of:

forming a chamber having portions that define a cavity within said chamber;

placing a microphone within said cavity of said chamber;

acoustically coupling said chamber to a source of low frequency acoustic signals;

receiving in said microphone acoustic signals in the range of one tenth Hertz to thirty Hertz; and

generating in said microphone electronic signals indicative of the intensity of said low frequency acoustic signals.

30. A method as claimed in Claim 29 comprising the further steps of:

forming the walls of said chamber with nonrigid material capable of moving inwardly and outwardly with respect to the interior of said cavity in response to the presence of low frequency acoustic energy; and

receiving in said microphone acoustic signals in the range of one tenth Hertz to thirty Hertz within said cavity of said chamber that are caused by the inward and outward motion of said nonrigid walls of said cavity.

31. A method for detecting low frequency acoustic signals comprising the steps of:

forming a chamber having portions that define a cavity within said chamber;

placing a microphone within said cavity of said chamber;

attaching a membrane to said chamber wherein said membrane covers said cavity of said chamber and wherein said membrane is capable of moving in response to very low frequency acoustic signals incident on said membrane;

acoustically coupling said membrane to a source of low frequency acoustic signals;

receiving in said microphone acoustic signals in the range of one tenth Hertz to thirty Hertz within said cavity of said chamber that are caused by the movements of said membrane; and

generating in said microphone electronic signals indicative of the intensity of said low frequency acoustic signals.

32. A method as claimed in Claim 31 comprising the further steps of:

amplifying said low frequency acoustic signals within said cavity of said chamber; and

receiving in said microphone said amplified acoustic signals in the range of one tenth Hertz to thirty Hertz.

33. A method for detecting low frequency acoustic signals comprising the steps of:

forming a chamber having portions that define a cavity within said chamber;

placing a microphone within said cavity of said chamber;

attaching a membrane to said chamber covering said cavity of said chamber;

acoustically coupling said membrane to a source of acoustic signals;

receiving in said microphone low frequency acoustic signals in the range of one tenth Hertz to thirty Hertz; and

generating in said microphone electronic signals indicative of the intensity of said low frequency acoustic signals.

34. The method as claimed in Claim 33 further comprising the steps of:

coupling a low bandpass filter to said microphone capable of processing said electronic signals from said microphone;

obtaining digitally encoded electronic signals indicative of the intensity of said low frequency acoustic signals in the frequency range of one tenth Hertz to two Hertz;

coupling a high bandpass filter to said microphone capable of processing said electronic signals from said microphone; and

obtaining digitally encoded electronic signals indicative of the intensity of said high frequency acoustic signals in the frequency range of ten Hertz to thirty Hertz.

35. The method as claimed in Claim 34 further comprising the steps of:

coupling a processor unit to said low bandpass filter and to said high bandpass filter;

receiving in said processor unit said digitally encoded electronic signals from said low bandpass filter;

receiving in said processor unit said digitally encoded electronic signals from said high bandpass filter;

coupling a recording device to said processor unit; and

receiving in said recording device said digitally encoded electronic signals from said processor unit; and

recording in said recording device said digitally encoded electronic signals.

36. The method as claimed in Claim 33 further comprising the steps of:

acoustically coupling said membrane to low frequency acoustic signals of a child; and

positioning said membrane so that said membrane does not contact the skin of the child.